

# Exhibit B

**GLENN JOHNSON, PhD, Volume I, 2-24-09**

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1 IN THE UNITED STATES DISTRICT COURT FOR THE  
2 NORTHERN DISTRICT OF OKLAHOMA  
3  
4

5 W. A. DREW EDMONDSON, in his )  
6 capacity as ATTORNEY GENERAL )  
7 OF THE STATE OF OKLAHOMA and )  
8 OKLAHOMA SECRETARY OF THE )  
9 ENVIRONMENT C. MILES TOLBERT, )  
10 in his capacity as the )  
11 TRUSTEE FOR NATURAL RESOURCES )  
12 FOR THE STATE OF OKLAHOMA, )

13 Plaintiff, )  
14 )

15 vs. )

4:05-CV-00329-TCK-SAJ

16 TYSON FOODS, INC., et al, )  
17 )

18 Defendants. )  
19 )

20 -----  
21 VOLUME I OF THE VIDEOTAPED  
22 DEPOSITION OF GLENN JOHNSON, PhD, produced as a  
23 witness on behalf of the Plaintiff in the above  
24 styled and numbered cause, taken on the 24th day of  
25 February, 2009, in the City of Tulsa, County of  
Tulsa, State of Oklahoma, before me, Lisa A.  
Steinmeyer, a Certified Shorthand Reporter, duly  
certified under and by virtue of the laws of the  
State of Oklahoma.

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**918-587-2878**

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**A P P E A R A N C E S**

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ALSO PRESENT: Dr. Roger Olsen

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I N D E X

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1 plots for the missing versus no missing values look  
2 very similar?

3 A I'd have to go back and look at the scree  
4 plots.

5 Q Let me help you out there. I'll hand you 05:37PM  
6 exhibit -- I'll hand you what's been marked as  
7 Exhibit 12, and I'll represent to you, sir, that  
8 this is a Table 11 -- 6.11-7A from Dr. Olsen's  
9 report, and we've attached to it the sensitivity  
10 runs that we've been discussing both with and 05:38PM  
11 without missing data and corrected for the unlogged  
12 transformation. So I think the scree plots we were  
13 focusing on may be the last four pages of this  
14 exhibit.

15 A Could I get a clarification, please? 05:38PM

16 Q Excuse me. The PC -- they're PC plots. I  
17 think I said scree.

18 A You did say scree plots. That was my first  
19 question. This is not a scree plot.

20 Q Yeah. This is -- I misspoke. 05:38PM

21 A My second question is, you just represented  
22 that this graph has -- now has the log transform  
23 undone correctly, but these look exactly like the  
24 ones in his original report.

25 Q Well, there's two others that follow. 05:38PM

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1       **A**       Oh, okay.

2       **Q**       There's a total of four PC plots.

3               MR. GEORGE: Just so I'm clear, David, the  
4 last two pages of Exhibit 12, the cover of which is  
5 Dr. Olsen's expert report that was originally 05:39PM  
6 submitted in this matter, are work product that he  
7 has produced in connection with the report that was  
8 delivered in February; is that right?

9               MR. PAGE: The last two pages, yes.

10              MR. GEORGE: All right. Do you have any 05:39PM  
11 objection, just for clarity, to severing these last  
12 two pages so that -- they're not really part of the  
13 report to which they attached; right?

14              MR. PAGE: Well, this is a collection of  
15 information that came from Dr. Olsen's report. The 05:39PM  
16 last two pages would be errata to that report making  
17 the changes to the third and fourth -- excuse me --  
18 yeah, the third and fourth to the last pages.

19              MR. GEORGE: And this is a product of my  
20 poor memory, David. Were the last two pages 05:39PM  
21 actually part of the supplemental or errata report  
22 or declaration?

23              MR. PAGE: Yes.

24              MR. GEORGE: They're actually attached to  
25 that declaration? 05:40PM

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1 MR. PAGE: Yes.

2 MR. GEORGE: Okay. Well, I'm going to have  
3 the same objection I had earlier to the last two  
4 pages of Exhibit 12, which is to the extent this is  
5 the product of analysis that is the subject of a 05:40PM  
6 report that is untimely for which the State has  
7 neither sought nor obtained leave to submit in this  
8 matter, we object insofar as you're trying to get  
9 those opinions into the Record in this case.

10 MR. PAGE: Okay. Robert, let me make a 05:40PM  
11 correction. The last page of this report, SW15, was  
12 not part of the errata.

13 MR. GEORGE: Okay. So then I guess I need  
14 to know where SW -- where the last page came from.

15 MR. PAGE: It was part of the analysis that 05:40PM  
16 was done by Dr. Olsen.

17 MS. COLLINS: You're saying these are from  
18 the February 10th?

19 MR. PAGE: Except for the last page that  
20 was not attached. 05:40PM

21 MR. GRAVES: When was the analysis on the  
22 last page done?

23 MR. PAGE: In February, January or  
24 February.

25 MR. GRAVES: But it's not been submitted as 05:40PM

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1 part of any errata or other declaration?

2 MR. PAGE: No.

3 MR. GEORGE: Same objection.

4 Q Let's look at the fourth and third to the last  
5 pages.

05:41PM

6 A Fourth and third to the last?

7 Q Yeah. I think they're numbered 1 and 2 at the  
8 bottom right-hand corner.

9 MR. GEORGE: By the way, where are Pages 3  
10 and 4?

05:41PM

11 A Okay.

12 MR. GEORGE: It goes 1, 2, 5, 6? Don't  
13 know?

14 MR. PAGE: No.

15 A If that's the way, I have no 3 or 4. So I do  
16 have 1 and 2.

05:41PM

17 Q Okay. Could you compare those two PC plots  
18 and tell me whether or not the patterns are similar?

19 A Yes. As I just testified to, the general  
20 shape of the data cloud for SW3 and SW15 is similar

05:41PM

21 because that general shape of the data cloud is  
22 being driven by these four edge of field spread

23 samples and the extreme samples here. So the  
24 general shape, as the eye looks at it, is similar

25 with this L-shaped data cloud, and the other part of

05:42PM

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1 my previous response is also very clear on here. If  
2 you start to -- if you compare the figure from SW3  
3 on the page that has a 1 at the bottom to the figure  
4 in SW15, you can see that there -- that the samples  
5 that are missing from the second page are  
6 preferentially right in this area. Now --

05:42PM

7 Q Of the area where it's very close to --

8 A Well, it's not close to 1.3 here because this  
9 one does not do that final little translation that

10 Dr. Olsen did to get rid of negative values. So

05:42PM

11 this actually is not a scores plot as shown in the  
12 report because he did the translation so that there  
13 would be no scores, either PC1 or PC2, that would be  
14 less than zero. So the 1.3 line on this graph is

15 irrelevant because the translation has not been done  
16 or the 1.3 threshold is irrelevant.

05:43PM

17 Q When you compare the runs for where they have  
18 missing and non-missing data, the general patterns  
19 are the same, are they not, for the PC plots?

20 A The general shape of the data cloud looks  
21 similar. The general pattern of the samples right  
22 in this area of highest density, which is around --  
23 once you translated them, it's around this critical  
24 region of the 1.3 threshold is different. A lot of  
25 the missing data falls in that area.

05:43PM

05:43PM

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1 Q If we had the data for the missing values,  
2 would the PC1 scores be higher?

3 MR. GEORGE: Object to form.

4 A All others things being equal, I mean --

5 Q Yeah, yeah. 05:44PM

6 A I don't think adding those missing data would  
7 all of a sudden make this principal components  
8 analysis have a good fit for two principal  
9 components, so at least on that respect, no.

10 Q But it raised the PC scores? 05:44PM

11 MR. GEORGE: Object to form.

12 A Would it raise them?

13 Q Yes.

14 A No, it would not raise the scores. It would  
15 change the scores because you'd be calculating 05:44PM  
16 principal components with real data instead of  
17 assumed data, but I doubt they would all go higher.

18 MS. COLLINS: I'm going to make a late  
19 objection to Exhibit 11 and the characterization of  
20 it because Pages 5 and 6 have diagrams that are not 05:44PM  
21 included in the February 10th, 2009 Olsen  
22 declaration.

23 MR. GEORGE: And I'm going to move to  
24 strike them because they haven't even asked a  
25 question about it. 05:44PM

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1 MR. PAGE: Well, I'll go ahead and ask a  
2 question about it then, Robert.

3 Q Would you review the last two pages, and I'll  
4 represent to you that this will be PC plots.

5 MR. GRAVES: David, before you ask the 05:45PM  
6 questions, can I also ask whether those last two  
7 pages are -- I think you represented at least one of  
8 them has not been made a part of any errata or  
9 declaration. Are you claiming that it is errata  
10 material or is it just additional analysis that Dr. 05:45PM  
11 Olsen has done?

12 MR. PAGE: I'm using this to cross examine  
13 the witness.

14 MR. GRAVE: I'm asking what they are,  
15 though. 05:45PM

16 MR. PAGE: Well, they haven't been attached  
17 to any errata.

18 MR. GRAVES: But what are you claiming that  
19 they are?

20 MR. PAGE: Well, like I represented, the 05:45PM  
21 last two pages are the PCA analysis with the  
22 correction on the transformation. The next to the  
23 last page is in the errata; the last page is not.

24 MR. GRAVES: The last page is not in the  
25 errata? 05:46PM

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1 MR. PAGE: Which is the sensitivity  
2 analysis.

3 MS. COLLINS: And, again, I object to that  
4 characterization because neither Page 5 or 6 are in  
5 the --

05:46PM

6 MR. GRAVES: And I'll move to strike it as  
7 well because there's an order in the case about  
8 supplemental expert opinions.

9 Q Dr. Johnson, do you remember the question?

10 A No. Sorry.

05:46PM

11 MR. GEORGE: Do you see them I think was  
12 the question.

13 A Yes, I've seen them if that was the question.

14 MR. PAGE: That's probably about as far as  
15 I got.

05:46PM

16 Q Would you tell me whether or not the patterns  
17 for those two pages are similar?

18 MR. GEORGE: Object to form.

19 A Again, the shapes of the two data clouds in  
20 terms of the general outline is the same. The  
21 density of dots on the second figure is obviously  
22 much lower because the missing data have been  
23 removed.

05:46PM

24 With regard to my other discussion with regard  
25 to the scores plots that were produced in the

05:46PM

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